

ALESSANDRO PACELLA

Curriculum Vitae

Place Rome

Date 20.09.2021

Part I – General Information

Full Name	Alessandro Pacella
Citizenship	Italian
Spoken Languages	Italian, English, French

Part II – Education

Type	Year	Institution	Notes (Degree, Experience,...)
University graduation	2003	Sapienza University of Rome	Master degree (110/110 cum laude). Thesis in Mineralogy; “Characterization of the fibrous amphiboles from Biancavilla (CT, Italy):”.
PhD	2009	Sapienza University of Rome, Université Pierre et Marie Curie Paris VI	Cotutelle PhD in Earth Sciences and Physics and Chemistry of Materials: “Crystal chemistry and reactivity of fibrous amphiboles of environmental and health interest”.

Part III – Appointments

IIIA – Academic Appointments

Start	End	Institution	Position
05.11.2020	05.11.2029	MIUR	National Scientific Qualification as Associate Professor, SC 04/A1
01.10.2018	30.09.2023	Sapienza University of Rome	Temporary Researcher - A
02.11.2016	31.10.2017	National Research Council	Post-Doc - B
01.07.2015	30.06.2016	Sapienza University of Rome	Post-Doc - B
01.07.2013	30.06.2014	Sapienza University of Rome	Post-Doc - B
01.08.2011	31.07.2012	Sapienza University of Rome	Post-Doc - B
01.04.2010	31.03.2011	Sapienza University of Rome	Post-Doc - B
01.04.2014	31.08.2014	Institute of Hazard, Risk and Resilience - Durham University (UK)	Post-doc Scholarship
01.10.2011	30.11.2011	Laboratoire de Réactivité de Surface (LRS) - University Pierre et Marie Curie Paris VI	Post-doc Scholarship
01.04.2011	30.09.2011	Laboratoire de Réactivité de	Post-doc Scholarship

		Surface (LRS) - University Pierre et Marie Curie Paris VI	
01.10.2009	31.12.2009	Sapienza University of Rome	Term contract
01.06.2009	31.08.2009	Sapienza University of Rome	Term contract
01.02.2005	30.09.2005	Sapienza University of Rome	Term contract
02.05.2004	31.07.2004	Sapienza University of Rome	Term contract

IIIB – Other Appointments

Start	End	Institution	Position
13.05.2020	14.05.2020	IAEG NOA–EMP Online Symposium	Oral presentation: “Chemical reactivity of thermal treated naturally occurring amphibole asbestos”
2019	-	Periodico di Mineralogia	Section Editor of the ISI scientific journal – Mineralogy and Crystallography
14.06.2019		University of Pavia	Seminar: “Surface reactivity of amphibole asbestos: the influence of crystal chemistry and surface area”
23.05.2018		INAIL. Centro Ricerche Monte Porzio Catone (RM)	Seminar: “In vitro dissolution of mineral fibres: the behavior of asbestos”
03.03.2017		Roma 3 University	Seminar: “Crystal chemistry and surface reactivity of mineral fibres of environmental and health relevance”
11.05.2016		ENEA - Salone Centrale, Roma	Oral presentation: “Surface reactivity study of erionite fibres of environmental and health interest”
20.09.2011	25.09.2011	GeoMed2011 – 4th International Conference on Medical Geology. Bari (Italy)	Oral presentation: “Iron topochemistry, surface reactivity and in vitro toxicity of amphibole asbestos”

Part IV – Teaching experience

Year	Institution	Lecture/Course
2020-2021	Sapienza University of Rome	Course on Applied Mineralogy for Geological Sciences (3 CFU)
2020-2021	Sapienza University of Rome	Course on Mineralogy for Environmental Sciences (6 CFU)
2019-2020	Sapienza University of Rome	Course on Applied Mineralogy for Geological Sciences (3 CFU)
2019-2020	Sapienza University of Rome	Course on Mineralogy for Environmental Sciences (6 CFU)
2018-2019	Sapienza University of Rome	Course on Applied Mineralogy for Geological Sciences (3 CFU)

2018-2019	Sapienza University of Rome	9 Lectures on Morphological Crystallography, Course on Mineralogy for Geological Sciences
2018-2019	Sapienza University of Rome	8 Lectures on Optical Mineralogy, Course on Mineralogy for Geological Sciences
2019	The 2 nd European Mineralogical Union School on mineral fibres. Naturally occurring asbestos (NOA): from geological to medical aspects	Lecture: "Surface properties and dissolution of mineral fibres"
2018-2019	Sapienza University of Rome	Lectures on Morphological Crystallography
2018-2019	Sapienza University of Rome	Lectures on Optical Mineralogy
2017	European Mineralogical Union School on Mineral fibres: crystal chemistry, chemical-physical properties, biological interaction and toxicity	Lecture: "Dissolution in vitro of mineral fibres. Examples"
2015-2021	Sapienza University of Rome	Lectures on the Scanning Electron Microscopy. Course on Mineralogy (for Cultural Heritage) and Mineral Characterization (Geological Sciences) held by Prof. F. Bosi.

Part V - Society memberships, Awards and Honors

Year	Title
2018-2014	Italian Society of Mineralogy and Petrology (SIMP)
2014	Prize of 6500 euro from Accademia dei Lincei for research in UK. (Post-Doc at Durham University, UK)
2011	Prize of 2600 euro from SIMP (Italian Society of Mineralogy and Petrology) for post Post-doc Scholarship abroad (Post-Doc at LRS, Paris VI)
2011	Prize for Post-doc Scholarship of 6300 euro from the scientific office of the France Embassy (Post-Doc at LRS, Paris VI)

Part VI - Funding Information [grants as PI-principal investigator or I-investigator]

Year	Title	Program	Grant value
2021	Advances in ICP-MS technology: replace current ICP-MS with the new generation of ICP-MS more suitable for the application of multi-element geochemistry to earth, environment, and health.	MEDIE ATTREZZATURE SCIENTIFICHE 2020 Sapienza	81.000 (I)
2021	Crystal-chemistry and P-T stability diagrams of Li-Ca-Ti-Mn-Fe-rich tourmalines	ATENEO 2020 Sapienza	15.000 (I)
2020	Crystal chemical characterization and surface reactivity study of	BRIC-INAIL 2019	395.990 euro (PI)

	mineral fibers of environmental and health interest for the purposes of an accurate analysis of the contamination risk		
2020	Physics and chemistry of terrestrial magmas at high pressure and temperature: implications for their origin and migration through the deep Earth.	ATENEO 2019 Sapienza	15.000 (I)
2019	FIBRES: a multidisciplinary mineralogical, crystal-chemical and biological project to amend the paradigm of toxicity and cancerogenicity of mineral fibres	PRIN 2017	449.000 (I)
2017	Synthesis of heavy metal-holder carbonates reaction between Mg carbonates and multi-elementary aqueous solutions of toxic metals: efficiency of the toxic metal disposal process.	ATENEO 2016 Sapienza	12.460 (I)
2015	Crystal chemical and structural modifications of erionite fibres leached with simulated lung fluids	ATENEO 2014 Sapienza	5.000 euro (I)
2010	Particulate matter and mineral dust: mineralogical, environmental and health aspects	ATENEO 2009 Sapienza	15.000 euro (I)
2008	Mineralogical, chemical, physical and morphological features of fibrous minerals and investigation of their areal dispersion and impact on environment and health	ATENEO 2007 Sapienza	30.600 euro (I)

Part VII – Research Activities

Keywords

Amphibole asbestos
Surface reactivity
Dissolution
Crystal chemistry
Erionite

Brief Description

My research is devoted to the chemical structural characterization of asbestos and other mineral fibres that are not yet regulated. I'm also focused on the study of the bulk and surface modifications induced by the prolonged immersion of the fibers in solutions mimicking the human body fluids in order to unravel possible correlations between the physical chemical features of the mineral fibers and their toxicity and carcinogenicity. I'm involved in the hazard evaluation of the so-called NOA (Naturally Occurring Asbestos), i.e. fibrous minerals in their natural setting (rocks and soils). In this regard, I recently started investigating the relationships between lithology, mineralogy and structural setting of asbestos bearing outcrops and the crystal chemistry of the fibres. My research topics are extremely interdisciplinary and are made in collaboration with physicians, chemists, biophysicists and pathologists. I adopt a multi-analytical approach (XRPD, HRTEM, FESEM, various spectroscopic techniques such as XPS, ICP, and EPR).

Research collaboration

2013	2014	Italian National Institute of Health (ISS)	Collaboration for a monograph on fibrous amphiboles from Biancavilla (CT, Italy) submitted to the International Agency for Research on Cancer (IARC).
2012	-	University of Turin (Italy)	Collaboration with the G. Scansetti” Interdepartmental Centre for Studies on Asbestos and Other Toxic Particulates.
2009	-	National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA)	Collaboration with the Laboratory of observations and measures for the environment and climate.
2009	-	University of Cagliari (Italy)	Department of Chemical and Geological Sciences, INSTM Research Unit.

Other activities

2019	-	Sapienza University of Rome	Member of the Faculty Board.
2019	-	Sapienza University of Rome	Member of the Earth Science Department Board.
2019	-	Periodico di Mineralogia	Section Editor (Mineralogy and Crystallography)

Part VIII – Summary of Scientific Achievements

Product type	Number	Data Base	Start	End
Papers [international]	37	Scopus	2006	2021
Papers [national]				
Books [scientific]	1	Scopus	2017	
Books [teaching]				

Total Impact factor	102.375
Total Citations	527
Average Citations per Product	14.24
Hirsch (H) index	16
Normalized H index*	1.07

*H index divided by the academic seniority.

Part IX– Selected Publications

List of the publications selected for the evaluation. For each publication report title, authors, reference data, journal IF (if applicable), citations, press/media release (if any).

1. **PACELLA A.**, BALLIRANO P., FANTAUZZI M., ROSSI A., NARDI E., CAPITANI G.C., ARRIZZA L., and MONTEREALI M.R. (2021) Surface and bulk modifications of amphibole asbestos in mimicked lung fluids at acidic pH. *Scientific Reports*, 21, 11(1), 14249; DOI: 10.1038/s41598-021-93758-9; I.F. 4.379.
2. BALLIRANO P., and **PACELLA A.** (2020) Towards a detailed comprehension of the inertisation processes of amphibole asbestos: In situ high-temperature behaviour of fibrous tremolite. *Mineralogical Magazine*, 84(6), 888 – 899; DOI: 10.1180/mgm.2020.89; I.F. 1.426. Citations: 3.
3. **PACELLA A.**, TOMATIS M., VITI C., BLOISE A., ARRIZZA L., BALLIRANO P., TURCI F. (2020) Thermal inertization of amphibole asbestos modulates Fe topochemistry and surface reactivity. *Journal of Hazardous Materials*, 398, 123119; DOI: 10.1016/j.jhazmat.2020.123119. I.F. 10.588. Citations: 7.
4. **PACELLA A.**, ANDREOZZI G., NODARI L., BALLIRANO P. (2019) Chemical and structural characterization of UICC crocidolite fibres from Koegas Mine, Northern Cape (South Africa). *Periodico di Mineralogia*, 88(3), 297-306; DOI: 10.2451/2019PM910. I.F. 0.943. Citations: 5.
5. **PACELLA A.**, CREMISINI C., NARDI E., MONTEREALI M.R., PETTITI I., GIORDANI M, MATTIOLI M, BALLIRANO P. (2018) Different Erionite Species Bind Iron into the Structure: A Potential Explanation for Fibrous Erionite Toxicity. *Minerals*, 8(2), 36; DOI:10.3390/min8020036. I.F. 2.43. Citations: 8.
6. ANDREOZZI G.B., **PACELLA A.**, CORAZZARI I., TOMATIS M., and TURCI F. (2017) Surface reactivity of amphibole asbestos: a comparison between crocidolite and tremolite. *Scientific Reports*, 7(1), 14696; DOI:10.1038/s41598-017-14480-z. I.F. 4.122. Citations: 16.
7. **PACELLA A.**, CREMISINI C., NARDI E., MONTEREALI M.R., PETTITI I., BALLIRANO P. (2017) The mechanism of iron binding processes in erionite fibres. *Scientific Reports*, 7(1), 1319, DOI:10.1038/s41598-017-01477-x. I.F. 4.122. Citations: 6.
8. **PACELLA A.**, FANTAUZZI M., ATZEI D., CREMISINI C., NARDI E., MONTEREALI M.R., ROSSI A., BALLIRANO P. (2017) Iron within the erionite cavity and its potential role in inducing its toxicity: evidence of Fe (III) segregation as extra-framework cation. *Microporous and Mesoporous Materials*, 237, 168-179; DOI: 10.1016/j.micromeso.2016.09.021. I.F. 3.649. Citations: 13.

9. **PACELLA A.**, BALLIRANO P., CAMETTI G. (2016) Quantitative chemical analysis of erionite fibres using a micro-analytical SEM-EDX method. *European Journal of Mineralogy*, 28(2), 257-264; DOI: 10.1127/ejm/2015/0027-2497. I.F. 1.362. Citations: 13.
10. **PACELLA A.**, and BALLIRANO P. (2016) Chemical and structural characterization of fibrous richterite with high environmental and health relevance from Libby, Montana (USA). *Periodico di Mineralogia*, 85(2), 169-177; DOI: 10.2451/2016PM638. I.F. 0.883. Citations: 4.
11. MATASSA R., FAMILIARI G., BATTAGLIONE E., **PACELLA A.**, CAMETTI G., BALLIRANO P. (2015) A Deep Look Into Erionite Fibres: a TEM investigation of their self-assembly. *Scientific Reports*, 5, 16757; DOI: 10.1038/srep16757. I.F. 4.259. Citations: 23
12. BALLIRANO P., **PACELLA A.**, CREMISINI C., NARDI E., FANTAUZZI M., ATZEI D., ROSSI A., CAMETTI G. (2015) Fe (II) segregation at a specific crystallographic site of fibrous erionite: a first step toward the comprehension of the mechanism inducing its carcinogenicity. *Microporous and Mesoporous Materials*, 211, 49-63; DOI: 10.1016/j.micromeso.2015.02.046. I.F. 3.349. Citations: 27.
13. **PACELLA A.**, FANTAUZZI M., TURCI F., CREMISINI C., MONTEREALI M.R., NARDI E., ATZEI D., ROSSI A., ANDREOZZI G.B. (2015) Surface alteration mechanism and topochemistry of iron in tremolite asbestos: A step toward understanding the potential hazard of amphibole asbestos. *Chemical Geology*, 405, 28-38; DOI: 10.1016/j.chemgeo.2015.03.028. I.F. 3.82. Citations: 22.
14. **PACELLA A.**, FANTAUZZI M., TURCI F., CREMISINI C., MONTEREALI M.R., NARDI E., ATZEI D., ROSSI A., ANDREOZZI G.B. (2014) Dissolution reactions and surface iron speciation of UICC crocidolite in buffered solutions at pH 7.4: A combined ICP-OES, XPS and TEM investigation. *Geochimica et Cosmochimica Acta*, 127, 221-232; DOI: 10.1016/j.gca.2013.11.035. I.F. 4.331. Citations: 24.

List of all Publications

1. **PACELLA A.**, BALLIRANO P., SKOGBY H, ANGELOSANTO F., and CAMPOPIANO A. (2020) Crystal chemistry of naturally occurring asbestos tremolite from Calabrian ophiolites. *Periodico di Mineralogia*, *In press*

2. **PACELLA A.**, BALLIRANO P., FANTAUZZI M., ROSSI A., VITI, C., ARRIZZA L., NARDI E., CAPRIOLI R., and MONTEREALI M.R. (2021) Surface and bulk modifications of amphibole asbestos in mimicked lung fluids at acidic pH. *Minerals*, 11, 914; DOI: 10.3390/min11090914; I.F. 2.644.
3. **PACELLA A.**, BALLIRANO P., FANTAUZZI M., ROSSI A., NARDI E., CAPITANI G.C., ARRIZZA L., and MONTEREALI M.R. (2021) Surface and bulk modifications of amphibole asbestos in mimicked lung fluids at acidic pH. *Scientific Reports*, 11(1); DOI: 10.1038/s41598-021-93758-9; I.F. 4.379.
4. BALLIRANO P., CELATA B., **PACELLA A.**, and BOSI F. (2020) Recommended X-ray SREF and Rietveld refinement procedure for tremolite. *Acta Crystallographica Section B*, 77, 537 – 549; DOI: 10.1107/S2052520621004844; I.F. 2.266.
5. BALLIRANO P. and **PACELLA A.** (2020) Towards a detailed comprehension of the inertisation processes of amphibole asbestos: in situ high-temperature behaviour of fibrous tremolite. *Mineralogical Magazine*, 84(6), 888-899; DOI: 10.1180/mgm.2020.89. I.F. 1.426. Citations: 3.
6. **PACELLA A.**, TOMATIS M., VITI C., BLOISE A., ARRIZZA L., BALLIRANO P., TURCI F. (2020) Thermal inertization of amphibole asbestos modulates Fe topochemistry and surface reactivity. *Journal of Hazardous Materials*, 398, 123119; DOI: 10.1016/j.jhazmat.2020.123119. I.F. 10.588. Citations: 7.
7. QUIROZ-ESTRADA K., **PACELLA A.**, BALLIRANO P., HERNÁNDEZ-ESPINOSA M.A., FELIP C. and ESPARZA-SCHULZ M. (2020) Crystal Chemical and Structural Characterization of Natural and Cation-Exchanged Mexican Erionite. *Minerals* 10(9), 1-13, 772; DOI: 10.3390/min10090772. I.F. 2.508.
8. **PACELLA A.**, ANDREOZZI G., NODARI L., BALLIRANO P. (2019) Chemical and structural characterization of UICC crocidolite fibres from Koegas Mine, Northern Cape (South Africa). *Periodico di Mineralogia*, 88(3), 297-306; DOI: 10.2451/2019PM910. I.F. 0.943. Citations: 5.
9. MATTIOLI M., GIORDANI M, ARCANGELI P., VALENTINI L., BOSCARDIN M., **PACELLA A.**, and BALLIRANO P. (2018) Prismatic to Asbestiform Offretite from Northern Italy: Occurrence, Morphology and Crystal-Chemistry of a New Potentially Hazardous Zeolite. *Minerals*, 8(2), 69; DOI: 10.3390/min8020069. I.F. 2.43. Citations: 5.
10. **PACELLA A.**, CREMISINI C., NARDI E., MONTEREALI M.R., PETTITI I., GIORDANI M, MATTIOLI M., BALLIRANO P. (2018) Different Erionite Species Bind

- Iron into the Structure: A Potential Explanation for Fibrous Erionite Toxicity. *Minerals*, 8(2), 36; DOI:10.3390/min8020036. I.F. 2.43. Citations: 8.
11. BALLIRANO P. **PACELLA A.**, BLOISE A., GIORDANI M, and MATTIOLI M., (2018) Thermal Stability of Woolly Erionite-K and Considerations about the Heat-Induced Behaviour of the Erionite Group. *Minerals*, 8(1), 28; DOI:10.3390/min8010028. I.F. 2.43. Citations: 11.
 12. BELARDI G., VIGNAROLI G., TRAPASSO F., **PACELLA A.**, PASSERI D. (2018) Detecting asbestos fibres and cleavage fragments produced after mechanical tests on ophiolite rocks: clues for the asbestos hazard evaluation. *Journal of Mediterranean Earth Sciences*, 18, 63-78; DOI: 10.3304/JMES.2018.016. I.F. 0.5 Citations: 4.
 13. **PACELLA A.**, ANDREOZZI G.B., CORAZZARI I., TOMATIS M., and TURCI F. (2018) Surface reactivity of amphibole asbestos: a comparison between two tremolite samples with different surface area. *Periodico di Mineralogia*, 87(2), 195-205; DOI: 10.2451/2018PM791. I.F. 1.417. Citations: 2.
 14. BALLIRANO P., BLOISE A., CREMISINI C., NARDI E., MONTEREALI M.R., and **PACELLA A.** (2018) Thermally induced behavior of the K-exchanged erionite: a further step in understanding the structural modifications of the erionite group upon heating. *Periodico di Mineralogia*, 87(2), 123-134; DOI: 10.2451/2018PM769. I.F. 1.417. Citations: 4.
 15. ANDREOZZI G.B., **PACELLA A.**, CORAZZARI I., TOMATIS M., and TURCI F. (2017) Surface reactivity of amphibole asbestos: a comparison between crocidolite and tremolite. *Scientific Reports*, 7(1), 14696; DOI:10.1038/s41598-017-14480-z. I.F. 4.122. Citations: 16.
 16. **PACELLA A.**, CREMISINI C., NARDI E., MONTEREALI M.R., PETTITI I., BALLIRANO P. (2017) The mechanism of iron binding processes in erionite fibres. *Scientific Reports*, 7(1), 1319, DOI:10.1038/s41598-017-01477-x. I.F. 4.122. Citations: 6.
 17. GIORDANI M., MATTIOLI M., BALLIRANO P., **PACELLA P.**, CENNI M., BOSCARDIN M., VALENTINI L. (2017) Geological occurrence, mineralogical characterization and risk assessment of potentially carcinogenic erionite in Italy. *Journal of Toxicology and Environmental Health, Part B: Critical Reviews*, 20(2), 81-103; DOI: 10.1080/10937404.2016.1263586. I.F. 6.333. Citations: 16.
 18. TURCI F., TOMATIS M., **PACELLA A.** (2017) Surface and bulk properties of mineral fibres relevant to toxicity. *European Mineralogical Union Notes in Mineralogy*, 18, 171–214; DOI: 10.1180/EMU-notes.18.6. I.F. 1.00 Citations: 11.

19. BALLIRANO P., BLOISE A., GUALTIERI A.F., LEZZERINI M., PACELLA A., PERCHIAZZI N., DOGAN M., AND DOGAN. A.U. (2017) The crystal structure of mineral fibres. *European Mineralogical Union Notes in Mineralogy*, 2017, 18, 17–64; DOI: 10.1180/EMU-notes.18.2. I.F. 1.00. Citations: 35.
20. ROZALEN M., HUERTAS F.J., **PACELLA A.**, BALLIRANO P. (2017) Dissolution and biodurability of mineral fibres. *European Mineralogical Union Notes in Mineralogy*, 2017, 18, 347–366; DOI: 10.1180/EMU-notes.18.10. I.F. 1.00 Citations: 3.
21. **PACELLA A.**, FANTAUZZI M., ATZEI D., CREMISINI C., NARDI E., MONTEREALI M.R., ROSSI A., BALLIRANO P. (2017) Iron within the erionite cavity and its potential role in inducing its toxicity: evidence of Fe (III) segregation as extra-framework cation. *Microporous and Mesoporous Materials*, 237, 168-179; DOI: 10.1016/j.micromeso.2016.09.021. I.F. 3.649. Citations: 13.
22. BALLIRANO P. and **PACELLA A.** (2016) Erionite-Na upon heating: dehydration dynamics and exchangeable cations mobility. *Scientific Reports*, 6, 22786; DOI: 10.1038/srep22786. I.F. 4.259. Citations: 13
23. **PACELLA A.**, BALLIRANO P., CAMETTI G. (2016) Quantitative chemical analysis of erionite fibres using a micro-analytical SEM-EDX method. *European Journal of Mineralogy*, 28(2), 257-264; DOI: 10.1127/ejm/2015/0027-2497. I.F. 1.362. Citations: 13.
24. **PACELLA A.**, and BALLIRANO P. (2016) Chemical and structural characterization of fibrous richterite with high environmental and health relevance from Libby, Montana (USA). *Periodico di Mineralogia*, 85(2), 169-177; DOI: 10.2451/2016PM638. I.F. 0.883. Citations: 4.
25. MATASSA R., FAMILIARI G., BATTAGLIONE E., **PACELLA A.**, CAMETTI G., BALLIRANO P. (2015) A Deep Look Into Erionite Fibres: a TEM investigation of their self-assembly. *Scientific Reports*, 5, 16757; DOI: 10.1038/srep16757. I.F. 4.259. Citations: 23.
26. BALLIRANO P., **PACELLA A.**, CREMISINI C., NARDI E., FANTAUZZI M., ATZEI D., ROSSI A., CAMETTI G. (2015) Fe (II) segregation at a specific crystallographic site of fibrous erionite: a first step toward the comprehension of the mechanism inducing its carcinogenicity. *Microporous and Mesoporous Materials*, 211, 49-63; DOI: 10.1016/j.micromeso.2015.02.046. I.F. 3.349. Citations: 27.
27. **PACELLA A.**, FANTAUZZI M., TURCI F., CREMISINI C., MONTEREALI M.R., NARDI E., ATZEI D., ROSSI A., ANDREOZZI G.B. (2015) Surface alteration mechanism and topochemistry of iron in tremolite asbestos: A step toward understanding the potential

- hazard of amphibole asbestos. *Chemical Geology*, 405, 28-38; DOI: 10.1016/j.chemgeo.2015.03.028. I.F. 3.82. Citations: 22.
28. **PACELLA A.**, FANTAUZZI M., TURCI F., CREMISINI C., MONTEREALI M.R., NARDI E., ATZEI D., ROSSI A., ANDREOZZI G.B. (2014) Dissolution reactions and surface iron speciation of UICC crocidolite in buffered solutions at pH 7.4: A combined ICP-OES, XPS and TEM investigation. *Geochimica et Cosmochimica Acta*, 127, 221-232; DOI: 10.1016/j.gca.2013.11.035. I.F. 4.331. Citations: 24
 29. CAMETTI G., **PACELLA A.**, MURA F., ROSSI M., BALLIRANO P. (2013). New morphological, chemical, and structural data of woolly erionite-Na from Durkee, Oregon, USA. *American Mineralogist*, 98(11-12), 2155–2163. DOI: 10.2138/am.2013.4474. I.F. 2.059. Citations: 24
 30. FANTAUZZI M., **PACELLA A.**, ANDREOZZI G.B., FOURNIER J., GIANFAGNA A., ROSSI A. (2012) Surface chemistry and surface reactivity of fibrous amphiboles not regulated as asbestos. *Analytical and Bioanalytical Chemistry*, 404(3), 821-833. DOI: 10.1007/s00216-012-6190-5. I.F. 3.659. Citations: 24
 31. **PACELLA A.**, ANDREOZZI G.B., FOURNIER J., STIEVANO L., GIANTOMASSI F., LUCARINI G., RIPPO M.R., PUGNALONI A. (2012) Iron topochemistry and surface reactivity of amphibole asbestos: relations with in vitro toxicity. *Analytical and Bioanalytical Chemistry*, 402(2), 871-881. DOI: 10.1007/s00216-011-5525-y. I.F. 3.659. Citations: 20.
 32. PAOLETTI L., BRUNI B.M., GIANFAGNA A., MAZZIOTTI-TAGLIANI S., **PACELLA A.** (2011) Quantitative Energy Dispersive X-ray analysis of sub-micrometric particles using a Scanning Electron Microscope. *Microscopy and microanalysis*, 17(5), 710-717. DOI: 10.1017/S1431927611000432. I.F. 3.007. Citations: 6.
 33. **PACELLA A.**, ANDREOZZI G.B., FOURNIER J. (2010) Detailed crystal chemistry and iron topochemistry of asbestos occurring in its natural setting: A first step to understanding its chemical reactivity. *Chemical Geology*, 277(3-4), 197-206; DOI: 10.1016/j.chemgeo.2010.07.018. I.F. 3.72. Citations: 27.
 34. FANTAUZZI M., **PACELLA A.**, ATZEI D., GIANFAGNA A., ANDREOZZI G.B., and ROSSI A. (2010) Combined use of X-ray Photoelectron and Mössbauer spectroscopic techniques in the analytical characterization of iron oxidation state in amphibole asbestos. *Analytical and Bioanalytical Chemistry*, 396(8), 2889-2898; DOI: 10.1007/s00216-010-3576-0. I.F. 3.841. Citations: 44.

35. MAZZIOTTI-TAGLIANI S., ANDREOZZI G.B., BRUNI B.M., GIANFAGNA A. **PACELLA A.** and PAOLETTI L. (2009) Quantitative chemistry and compositional variability of fluorine fibrous amphiboles from Biancavilla (Sicily, Italy). *Periodico di Mineralogia* 78(1), 65-74; DOI: 10.2451/2009PM0004. I.F. 0.551. Citations: 13.
36. ANDREOZZI G.B., BALLIRANO P., GIANFAGNA A., MAZZIOTTI-TAGLIANI S., and **PACELLA A.** (2009) Structural and spectroscopic characterization of a suite of fibrous amphiboles with high environmental and health relevance from Biancavilla (Sicily, Italy). *American Mineralogist*, 94(10), 1333-1340; DOI: 10.2451/2009PM0004. I.F. 2.026. Citations: 27.
37. **PACELLA A.**, ANDREOZZI, G.B., BALLIRANO P., GIANFAGNA, A. (2008) Crystal-chemical and structural characterization of fibrous tremolite from Ala di Stura (Lanzo Valley, Italy). *Periodico di Mineralogia* 77(2), 51-62. DOI: 10.2451/2008PM0013. I.F. 0.333. Citations: 21.
38. PAOLETTI L., BRUNI B.M., ARRIZZA L., MAZZIOTTI-TAGLIANI, S., **PACELLA, A.** (2008) A micro-analytical SEM-EDS method applied to the quantitative chemical compositions of fibrous amphiboles. *Periodico di Mineralogia* 77(2), 63-73. DOI: 10.2451/2008PM0014. I.F. 0.333. Citations: 19.
39. BRUNI B.M., **PACELLA A.**, MAZZIOTTI-TAGLIANI S., GIANFAGNA A., PAOLETTI, L. (2006) Nature and extent of the exposure to fibrous amphiboles in Biancavilla. *Science of the Total Environment*, 370(1), 9-16. DOI: 10.1016/j.scitotenv.2006.05.013. I.F. 3.10. Citations: 27.

Others Publications

1. BRUNI B.M., SOGGIU M.E., MARSILI G., INGLESSIS M., PALUMBO L., PICCARDI A., BECCALONI E., FALLENI F., MAZZIOTTI TAGLIANI S., and **PACELLA A.** (2014) Environmental concentrations of fibers with fluoro-edenitic composition and population exposure in Biancavilla (Sicily, Italy). *Annali dell'Istituto Superiore di Sanità*, 50(2), 119-126.

Participation in Conferences

Oral presentation as coauthor

1. ANDREOZZI G.B., **PACELLA A.**, TURCI F. (2016) Topochemistry of iron and surface reactivity of crocidolite and tremolite amphibole asbestos: a comparative case

study. 2nd European Mineralogical Conference, EMC 2016: Minerals, fluids and rocks: alphabet and words of planet Earth". Rimini, 11-15 settembre 2016.

2. **PACELLA A.**, FANTAUZZI M., ATZEI D., CREMISINI C., NARDI E., MONTEREALI M.R., ROSSI A., and BALLIRANO P. (2016) Iron fixed as extra-framework cation potentially plays a crucial role in inducing carcinogenicity in erionite. 2nd European Mineralogical Conference, EMC 2016: Minerals, fluids and rocks: alphabet and words of planet Earth". Rimini, 11-15 settembre 2016.

Poster presentation

1. BALLIRANO P., **PACELLA A.**, CREMISINI C., NARDI E., FANTAUZZI M., ATZEI D., ROSSI A., CAMETTI G. (2015) An insight into the mechanism of Fe (III) acquisition by erionite fibres: a first step toward the comprehension of the mechanisms inducing their carcinogenicity. Congresso SIMP-AIV-SoGeI-SGI., Firenze 2-4 Settembre 2015
2. **PACELLA A.**, ANDREOZZI G.B, BALLIRANO P, GIANFAGNA A, MAZZIOTTI-TAGLIANI S, BRUNI B.M. (2007). Caratterizzazione cristallochimica di fibre di amfibolo di interesse ambientale. Convegno Nazionale Anfiboli fibrosi: nuove problematiche relative al rischio ambientale e sanitario. 27-28 aprile 2007. (pp. 160-161).
3. MAZZIOTTI-TAGLIANI S., ANDREOZZI G.B., BALLIRANO P., **PACELLA A.**, BRUNI B.M., BURRAGATO F., GIANFAGNA A., PAOLETTI L. (2007). Mineralogical characterization of fibrous amphiboles of environmental interest. *Geoitalia 2007*. 10-14 settembre. (vol. 2, pp. 74). ISBN/ISSN: 1972-1975.
4. **PACELLA A.**, G.B. ANDREOZZI, P. BALLIRANO, A. GIANFAGNA, S. MAZZIOTTI-TAGLIANI, B.M. BRUNI. (2007). Crystal-chemical characterization of fibrous amphiboles of environmental interest. *Geoitalia 2007*. 10-14 settembre.
5. **PACELLA A.**, G.B. ANDREOZZI, P. BALLIRANO, A. GIANFAGNA, S. MAZZIOTTI-TAGLIANI, B.M. BRUNI. (2007). Crystal-chemical characterization of fibrous of amphiboles of environmental interest. *Frontiers in Mineral Sciences*. 26-28 Giugno.
6. **PACELLA A.**, G.B. ANDREOZZI, P. BALLIRANO, A. GIANFAGNA, S. MAZZIOTTI-TAGLIANI, B.M. BRUNI, J. FOURNIER, L. STIEVANO. (2007). Crystal-chemical characterization of tremolites of environmental and health interest. *Geoitalia 2007*. 10-14 settembre.
7. **PACELLA A.**, ANDREOZZI G.B., BALLIRANO P., GIANFAGNA A., MAZZIOTTI-TAGLIANI S., FOURNIER J., STIEVANO L. (2007). Crystal-chemical characterization of tremolites of environmental and health interest. *Amphiboles*. 29-31 Ottobre.

8. **PACELLA A.**, GIANFAGNA A, ANDREOZZI G.B, BALLIRANO P, MAZZIOTTI-TAGLIANI S, BRUNI B.M, FOURNIER J, STIEVANO L. (2007). Crystal-chemical characterization of tremolites of environmental and health interest. GEOITALIA 2007. 10-14 SETTEMBRE. (vol. 2, pp. 78). ISBN/ISSN: 1972-1552.
9. GIANFAGNA A., ANDREOZZI G.B., BALLIRANO P., MAZZIOTTI-TAGLIANI S., **PACELLA A.**, BRUNI. B.M. (2006). Multi-analytical approach to crystal-chemical characterization of the fibrous fluoro-edenite amphibole from Biancavilla, Sicily, Italy. XXXV Congresso dell'Associazione Italiana di Cristallografia. 18-21 Settembre.
10. BRUNI B.M., **PACELLA A.**, MAZZIOTTI-TAGLIANI S., GIANFAGNA A., PAOLETTI L. (2006). Nature and extent of the exposure to fibrous amphiboles in Biancavilla (Sicily, Italy). 19° GENERAL MEETING OF THE IMA. 23-28 LUGLIO 2006.
11. BRUNI B.M, **PACELLA A.**, MAZZIOTTI-TAGLIANI S., GIANFAGNA A., PAOLETTI L. (2006). Nature and extent of the exposure to fibrous amphiboles in Biancavilla. European Conference on Asbestos Risks and Management. 4-6 Dicembre. (pp. 97-102).
12. MAZZIOTTI-TAGLIANI S., GIANFAGNA A., BURRAGATO F., **PACELLA A.**, BRUNI B.M., PAOLETTI L. (2006). Aspetti minerogenetici, genetici ed ambientali relativi alla presenza di anfiboli di fluoro nell'area vulcanica di Biancavilla (CT, Sicilia). LXXXV SIMP. 27-30 Settembre.
13. CARDILE V., PUGNALONI A., GIANFAGNA A., MAZZIOTTI-TAGLIANI S., **PACELLA A.**, BRUNI. B.M. (2006). In vitro toxicity of the new fluoro-edenite amphibolic fibres from Biancavilla (Mt. Etna, Sicily, Italy). IMA. 23-28 Luglio.
14. GIANFAGNA A., BRUNI B.M., MAZZIOTTI-TAGLIANI S., **PACELLA A.**, PAOLETTI L. (2005). Fibrous and asbestos-like minerals in the volcanic area of Biancavilla (Catania, Sicily, Italy): identification, classification and environmental impact assessment. EUROPEAN MEETING AMAM. 5-7 DICEMBRE. (pp. 56-58).
15. GIANFAGNA A., MAZZIOTTI-TAGLIANI S., **PACELLA A.** (2005). Mineralogy and chemistry of the new asbestiform amphiboles from Biancavilla, Mount Etna (Sicily, Italy): differences and similarities whit fluor-edenite prismatic crystal. 5° FORUM ITALIANO DI SCIENZE DELLA TERRA GEOITALIA. 21-23 SETTEMBRE 2005.
16. GIANFAGNA A., BELLATRECCIA F., BURRAGATO F., MAZZIOTTI S., **PACELLA A.** (2004). New asbestiform amphiboles of volcanic origin from Biancavilla (Sicily, Italy).
17. GIANFAGNA A., BELLATRECCIA F., BURRAGATO F., MAZZIOTTI S., **PACELLA A.** (2004). New asbestiform amphiboles of volcanic origin from Biancavilla (Sicily, Italy). 32°IGC. 20-28 agosto.

Roma, 20 settembre 2021